

Atty. Docket No. KIK01 P-322

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

1124-1  
Art Unit : 2863  
Examiner : Xiuquin Sun  
Applicant : Kenichiro Kobayashi  
Appln. No. : 09/838,905  
Filing Date : April 20, 2001  
Confirmation No. : 1673  
For : METHOD AND APPARATUS TO MEASURE AMOUNT OF  
MOVEMENT USING GRANULAR SPECK PATTERN  
GENERATED BY REFLECTING LASER BEAM

**Assistant Commissioner for Patents  
Washington, D.C. 20231**

Dear Sir:

## **RESPONSE**

In response to the Office Action mailed December 2, 2002, Applicant responds as follows.

In the Claims:

Please amend claims 3, 9, 13 and 15 as follows.

3. (Amended) The apparatus as defined in claim 2 and further including a light shield positioned in front of said line sensor.

9. (Amended) The apparatus as defined in claim 8 and further including a light shield positioned in front of said line sensor.

13. (Twice Amended) A lensless apparatus for measuring the amount which an object to be measured has moved in a plane and back and forth using a granular speck pattern generated by a reflecting laser beam, said apparatus comprising:

a collimated light source for generating a granular speck pattern corresponding to the surface of an object to be measured;

a line sensor positioned to detect directly without a lens said granular speck pattern as an index; and